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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,715	05/23/2001	Patricia J. Nelson	8540G-000007	1500

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,715

Applicant(s)

NELSON ET AL.

Examiner

Julian A. Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 10-21 is/are allowed.
- 6) ☐ Claim(s) 1, 2, 4-6 is/are rejected.
- 7) ☐ Claim(s) 3 and 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Remarks

This Office Action is responsive to applicant's amendment filed August 29, 2003.

Claims 1-21 are pending.

Claim Rejections - 35 USC § 102 and 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shinoki et al. (U.S. Pat. 5,190,726)

Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DuBose (U.S. Pat. 6,013,385) in view of Tsukui et al. (JP Pat. 62-176064).

The rejection(s) is maintained for the reasons of record and for the additional reasons to follow in view of applicant's salient arguments. The examiner notes that the rejection of dependent claim 4 under 35 U.S.C. 102(b) based on Shinoki et al. is now withdrawn, in view of the examiner's further consideration that the gas stream [14] in Shinoki et al. is comprised of natural gas and steam and not air or oxygen as required by the claim.

Regarding the present amendment to the claims, independent claim 1 now recites that the gas stream is supplied to an electrode of the fuel cell. The teachings of DuBose are maintained as discussed in the prior Office Action, wherein the gas stream is an air source that is sent

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directly to cathode inlet [14]. (col. 5 line 11-14) In Shinoki et al. and referring to Figure 1, the gas stream [14] is maintained to be supplied to an electrode of the fuel cell [13], albeit indirectly, in that "a process gas supply system [14] is connected with a process reactor comprising reformer 12 and fuel cell 13 connected to the reformer 12". (col. 3 line 17-19) The scope of the present claims do not preclude an intermediary component such as the reformer shown in Shinoki et al. as being part of the gas stream supplied to the fuel cell electrode. The examiner further notes that consistent with the examiner's interpretation of a gas stream being supplied to an electrode of a fuel cell indirectly (such as shown in Shinoki et al.), Figures 2A and 2B of applicant's disclosure both show that the gas stream from hydrogen source [66] have to pass through humidifier [68] and sensor [70] before finally reaching the fuel cell assembly [10].

Applicant's arguments in reference to Shinoki et al. (referred to as '726) have been fully considered, however they are not persuasive. Applicant submits that the inputs to the fuel cell reformer are natural gas and steam, which are argued to not be fuel cell inputs. In reply, the examiner asserts that the natural gas and steam inputs to the reformer result in the formation of a reformat, which indeed is then input into the fuel cell. The steam humidifies the natural gas to the extent that the amount of water vapor and level of moisture in the reactant gas stream resultantly increases. As to Shinoki et al. not being "adjusted for any type of humidity control", this line of argument is not persuasive as such arguments directed to method-of-using features are outside the scope of the claimed fuel cell system.

Applicant's arguments in reference to Dubose (referred to as '385) and Tsukui et al. (referred to as JP '064) have been fully considered, however they are not persuasive. The examiner acquiesces to applicant's characterization that Dubose does not teach a compensator.

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connected to the (disclosed) humidity sensor, and that Tsukui et al. does not teach a humidity sensor. However, in response thereto, applicant is reminded that one cannot show nonobviousness by attacking references individually, where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Allowable Subject Matter

As set forth in the previous Office Action, claims 3 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As set forth in the previous Office Action, claims 10-20 are allowed. Independent claim 21, notably modeled after dependent claim 3 (previously indicated to be allowable) is allowed for the reasons set forth for dependent claim 3 in the previous Office Action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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